

Organic Chemistry of Southern Sources:  
Microwave Spectroscopy of Cha-MMS1 and IRAS 15194-5115

Martin Cordiner, NASA Goddard Space Flight Center  
Steven Charnley, NASA Goddard Space Flight Center

We report new spectra of molecule-rich sources in the southern hemisphere obtained using the 22-metre Mopra telescope. Spectra and maps are presented of organic molecules detected between 30 and 50 GHz in the young Class 0 protostar Chamaeleon MMS-1. The large abundances of polyynes, cyanopolyynes and methanol may be indicative of a warm carbon chemistry in the dense gas surrounding this protostar. Spectra are also presented from a 78-96 GHz scan of the carbon-rich AGB star IRAS 15194-5115, including new detections of HC<sub>5</sub>N, CCS and C<sup>13</sup>CH.